

CLAIM SET AS AMENDED

1. (Currently Amended) A method in connection with a measuring device detecting hydrometeors, ~~in which method~~ comprising the steps of:

- ~~the measuring~~ mechanical impulses of the hydrometeors falling on a detection surface ~~are measured, characterized in that~~

- defining a threshold value for the impulses by using an initial part of the measuring device (1) is used to perform a continuous measurement, in order to define a threshold value for an impulse,

- only after the threshold value is exceeded ~~is the~~, exciting a final part (2) of the measuring apparatus ~~excited for measuring operations, in order to minimize the power consumption of the apparatus, and~~

- filtering out mechanical disturbances ~~are filtered out of the signal from a signal representing one of the impulses exceeding the threshold value during processing, on the basis of one or more characteristic features of a hydrometeor signal~~ the signal,

- defining a first parameter of the one impulse in a first time window (10) after defining the threshold value,

- defining the same parameter from the one impulse in a second, later time window (11),

- comparing the first and second time-window parameters with each other, in order to eliminate a spurious signal, and

- creating a ratio between first (10) and second (11) time windows to be used as a limit value for the spurious signal.

2. (Currently Amended) ~~A method~~ The method according to Claim 1, ~~characterized in that further comprising to step of:~~

returning the final part (2) of the measuring apparatus ~~is returned~~ to an inactive state immediately after a measurement.

3. (Currently Amended) ~~A method~~ The method according to Claim 1, ~~characterized in that further comprising the step of:~~

recording pulse-specific measurement data ~~is recorded~~ (4) in the initial part (1) of the measuring apparatus, so that the final part can read it after ~~excitation~~ the exciting step.

4-5. (Cancelled)

6. (Currently Amended) A method for measuring hydrometeors, ~~in which the method comprising the steps of:~~

~~the measuring~~ mechanical impulses of the hydrometeors falling on a detection surface, and which exceed a predefined threshold value, ~~are measured, in which case~~

defining a first parameter ~~such as amplitude or the rate of change of the pulse is defined~~ in a first time window (10) after the definition of the threshold value, ~~characterized~~

~~in that,~~

in order to eliminate a spurious signal, defining the same parameter from the impulse
in a second, later time window (11), ~~the same parameter is defined from the impulse and~~
comparing the first and second time-window parameters are compared with each
other, ~~in order to eliminate spurious signals, and~~
creating a ratio between the first (10) and second (11) time windows to be used as a
limit value for the spurious signal.

7. (Cancelled)

8. (Currently Amended) A method for measuring hydrometeors, ~~in which the method~~
comprising the steps of:

- ~~the measuring~~ mechanical impulses of the hydrometeors falling on a detection surface, and which exceed a predefined threshold value, ~~are measured,~~
- ~~the triggering~~ initiation of the ~~measurement is triggered~~ measuring step in connection with pulses exceeding when one of the impulses exceeds the threshold value,
- in connection with triggering, defining at least one initial parameter, ~~such as amplitude or the rate of change of the pulse, is defined from the impulse exceeding the threshold value,~~

characterized in that,

- after the first measurement, the measuring time is measured which elapses before

the parameter has reached a predefined value relative to the initial value of the parameter,

and

- using this time is used which elapses as a characteristic parameter in filtering,
- defining a first parameter of the one impulse in a first time window (10) after
defining the threshold value,
- defining the same parameter from the one impulse in a second, later time window
(11),
- comparing the first and second time-window parameters with each other, in order to
eliminate a spurious signal, and
- creating a ratio between the first (10) and second (11) time windows to be used as a
limit value for the spurious signal.

9. (Currently Amended) A method for measuring hydrometeors, ~~in which the method~~
comprising the steps of:

- ~~the measuring~~ mechanical impulses of the hydrometeors falling on a detection
surface, and which exceed a predefined threshold value, are measured,
- ~~the triggering initiation of the measurement is triggered measuring step in~~
connection with pulses one of the impulses exceeding the threshold value exceeding the
threshold value,
- in connection with triggering, defining at least one initial parameter, such as
amplitude or the rate of change of the pulse, is defined from the one impulse exceeding the

threshold value, and

characterized in that

- adjusting the triggering level of ~~the~~ a hydrometeor-signal detection circuit (3) is ~~adjusted~~ on the basis of ~~the~~ a wind velocity, in such a way that ~~the~~ an amplitude of spurious signals caused by ~~the~~ wind remains below the triggering level.

10. (Currently Amended) A measuring device for detecting hydrometeors, ~~which~~ includes comprising

- a detector part (1), ~~which, in turn, includes~~ including

- a detection element (6), for detecting impacts caused by the hydrometeors,

- an amplifier circuit (5), for amplifying ~~the~~ an output signal of the detection element (6),

- a limit-value circuit (3), for triggering ~~the~~ measurement of impulses exceeding a specific signal level, and

- a processor part (2) for processing ~~the~~ a triggered-signal signal representing one of impulses exceeding the specific signal level,

characterized in that wherein

- the detector part (1) is arranged to perform continual measurement, in order to define ~~the~~ a threshold value of the one impulse exceeding the specific signal level,

- the processor part (2) is arranged to be excited to measurement operations only when the threshold value is exceeded, in order to minimize ~~the~~ power consumption of the

measuring apparatus, and that

- the device includes means for filtering out mechanical disturbances of the signal impulses exceeding the specific signal level during the processing, on the basis of one or more characteristic features of a hydrometeor—the one impulse exceeding the specific signal level,

wherein the device is adapted

- to define a first parameter of the one impulse in a first time window (10) after defining the specific signal level,

- to define the same parameter from the one impulse in a second, later time window (11),

- to compare the first and second time-window parameters with each other, in order to eliminate a spurious signal, and

- to create a ratio between the first (10) and second (11) time windows to be used as a limit value for the spurious signal.

11. (Currently Amended) ~~An apparatus—~~The apparatus according to Claim 10, ~~characterized in that~~ wherein the processor part (2) of the measuring apparatus is arranged to return to an inactive state immediately after measurement.

12. (Currently Amended) ~~An apparatus—~~The apparatus according to Claim 10, ~~characterized in that~~ wherein the detector part includes memory means (4) for recording

pulse-specific measurement data, which the processor part can read after excitation.

13. (Currently Amended) ~~A method~~ The method according to Claim 2, ~~characterized in that further comprising the step of:~~

recording pulse-specific measurement data ~~is recorded~~ (4) in the initial part (1) of the measuring apparatus, so that the final part can read it after ~~excitation~~ the exciting step.

14-15. (Cancelled)

16. (Currently Amended) ~~An apparatus~~ The apparatus according to Claim 11, ~~characterized in that wherein~~ the processor part (2) of the measuring apparatus is arranged to return to an inactive state immediately after measurement.

17. (New) The method according to Claim 1, wherein first parameter is an amplitude, a rate of change, a half-band width, or a frequency of the signal exceeding the threshold value.

18. (New) The method according to Claim 6, wherein first parameter is an amplitude, a rate of change, a half-band width, or a frequency of the signal exceeding the threshold value.

19. (New) The method according to Claim 8, wherein first parameter is an amplitude, a rate of change, a half-band width, or a frequency of the signal exceeding the threshold value.

20. (New) The method according to Claim 9, wherein first parameter is an amplitude, a rate of change, a half-band width, or a frequency of the signal exceeding the threshold value.

21. (New) The method according to Claim 10, wherein first parameter is an amplitude, a rate of change, a half-band width, or a frequency of the signal exceeding the threshold value.